

**REMARKS**

Applicant requests favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1-22 were pending in the application and were rejected in the Office Action. Applicant appreciates the indication of allowable subject matter in claims 1-18. By way of this Amendment, Applicant has: (a) amended claims 1, 5, 14, 15, 17-19, and 21; and (b) added new claims 23-33. Accordingly, claims 1-33 are respectfully submitted for further consideration.

**1. Information Disclosure Statement**

Applicant appreciates the returned (and initialed) copy of the PTO-1499 that was submitted with the Information Disclosure Statement ("IDS") filed on February 13, 2002. Applicant notices that the Examiner clearly considered references A1, A4, and A5. It is not clear, however, whether the Examiner considered reference A2 (*i.e.*, DE 1 928 432) and reference A3 (*i.e.*, DE 2 053 017), both of which were discussed in the Background section of the instant application. *See* ¶¶ [0004]-[0005]. Applicant respectfully requests that these references be considered and that such consideration be indicated by means of another initialed PTO-1449 (enclosed).

**2. Rejection of Claims 1-18 under 35 U.S.C. § 112, ¶ 2**

The Examiner rejected claims 1-18 under 35 U.S.C. § 112, ¶ 2 as allegedly being indefinite as a result of a recitation of "frequency movements" in claim 1. To eliminate this apparent indefiniteness, Applicant has non-narrowingly amended claim 1 to recite "image changes" rather than "frequency movements," as suggested by the Examiner. Support for this change is provided at ¶ [0028]. Applicant made similar non-narrowing amendments to claims 5, 14, 15, 17, and 18, which now recite "image changes" or a "number of image changes," as contextually appropriate.

As the reason for the apparent indefiniteness in claims 1-18 has been obviated by the amendments made herein to claims 1, 5, 14, 15, 16, and 17, Applicant respectfully requests a withdrawal of the rejection of claims 1-18 under 35 U.S.C. § 112.

### 3. Rejection of Claims 19-22

The Examiner rejected claims 19-22 under 35 U.S.C. § 103(a) as allegedly being obvious when considering U.S. Patent Publication No. 2003/0142398 ("Leblans") in view of U.S. Patent No. 5,239,190 ("Hughlett"). For the following reasons, Applicant respectfully traverses this rejection.

Applicant notes that if Leblans were to qualify as prior art, it could only do so under 35 U.S.C. § 102(e). However, Leblans does not qualify as § 102(e) art based solely on the filing date (*i.e.*, March 8, 2001) of PCT Application No. PCT/EP01/02807 ("PCT '807"), which was filed in English and designated the U.S. Specifically, as PCT '807 was filed after the Applicant's invention date (which can be established to be no later than February 14, 2001 by filing a certified translation of the priority document DE 101 06 698.8), PCT '807 was not filed "before the invention by the applicant," as required by § 102(e). *See* M.P.E.P. 2136.03. However, § 102(e) may still be applicable because PCT '807 claimed priority to U.S. Patent Application No. 09/521,618 ("U.S. '618"), which was filed on March 8, 2000. *See id.*

In light of the foregoing, for Leblans to qualify as § 102(e) prior art, U.S. '618 must provide 35 U.S.C. § 112, ¶ 1 support for that which is taught by Leblans and is applied by the Examiner. *See id.* However, as U.S. '618 was not published, Applicant can not determine whether U.S. '618 provides the § 112, ¶ 1 support necessary to justify applying Leblans under § 102(e). As a result, Applicant respectfully requests that the Examiner state that U.S. '618 provides the necessary § 112, ¶ 1 support. Until this statement is made, Applicant must respectfully traverse the rejection. To expedite prosecution, however, Applicant has amended independent claim 19 while taking into consideration the teachings of Leblans and Hughlett. Further, to preserve Applicant's original scope of protection, new claims 23-26 have been added and are identical to original claims 19-22. Pending the outcome of the Examiner's review of U.S. '618, Applicant will decide whether to maintain these new claims.

As amended, claim 19 recites an apparatus for automatically focusing an optical system that includes, among other possible things (*italic emphasis added*):

an image sensor analysis unit;  
an autofocus system unit;  
a focusing device; and  
a displaceable objective,  
wherein the objective is adapted to be automatically moved vertically in response to a signal corresponding to a vertical height between a target region of a specimen and a reference point,

wherein the image sensor analysis unit is adapted to send a signal to the autofocus system unit corresponding to the vertical height of the target region,

wherein the autofocus system unit is adapted to measure a focus height,

wherein the autofocus system unit is adapted to compare the focus height to the vertical height between the target region and the reference point and yield an output corresponding to said comparison,

wherein the focusing device is adapted to move the objective vertically in response to the output of the autofocus system unit, and

*wherein the image sensor analysis unit is adapted to detect image changes in distinct regions of the specimen over time.*

For the following reasons, the combination of Leblans and Hughlett fails to teach or suggest the apparatus for automatically focusing an optical system, which is recited in claim 19.

Leblans and Hughlett teach auto-focusing systems and methods. Specifically, both references teach systems that can focus automatically on a particular area of interest ("AOI"). However, neither reference teaches or suggests later returning to a particular AOI to detect image changes at that AOI. As a result, the combination of Leblans and Hughlett fails to teach or suggest at least an "image sensor analysis unit [that] is adapted to detect image changes in distinct regions of [a] specimen over time," as above-italicized in claim 19.

As the combination of Leblans and Hughlett fails to teach or suggest monitoring images changes over time in particular AOIs, the combination can not be used to reject claim 19, or any claim dependent thereon under 35 U.S.C. § 103(a). Moreover, as claims 20-22 depend from claim 19, each of these dependent claims is also allowable over the combination of Leblans and Hughlett, without regard to the other patentable limitations recited therein. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claims 19-22 under § 103(a).

#### **4. New Claims 23-33**

##### **a. New Claims 23-26**

New claims 23-26 correspond to original claims 19-22 and were added pending the Examiner's review of U.S. '618, as previously discussed.

##### **b. New Claims 27-33**

New independent claim 27 recites an apparatus for automatically focusing an optical system that includes, among other possible things (*italic emphasis added*):

an image sensor analysis unit;  
an autofocus system unit;  
a focusing device; and

a displaceable objective,  
wherein the objective is adapted to be automatically moved in response  
to a signal corresponding to a distance between a target region of a specimen  
and a reference point, and  
*wherein the image sensor analysis unit is adapted to detect image  
changes in distinct regions of the specimen over time.*

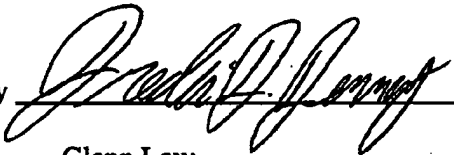
As previously discussed, neither Leblans nor Hughlett teaches or suggests detecting image changes over time. Accordingly, the combination of Leblans and Hughlett can not be used to reject new claim 27, or any claim dependent thereon. Moreover, as new claims 28-33 depend from new claim 27, each of these dependent claims is also allowable over the combination of Leblans and Hughlett, without regard to the other patentable limitations recited therein.

### CONCLUSION

A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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By 

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HEREWITH, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HEREWITH, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.